



***Materials Division
Certification School Program
Policy Manual
2005***



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INTRODUCTION

The Materials Certification Program is offered by the Materials Division of the Virginia Department of Transportation for individuals who wish to receive training and certification in the areas of Hydraulic Cement Concrete, Asphalt Concrete, Soils, Aggregate, Nuclear Safety and Pavement Marking. Our goal is to provide on-going training in materials technology for some 12,000 industry and Department employees for the purpose of providing a competent workforce. These workers are involved in the production, utilization, acceptance, testing and inspection of materials used in the Commonwealth's transportation infrastructure.

To attain this goal the Training and Certification Programs objectives are:

- Provide technical training to Department and industry personnel on both a routine and as-needed basis.

- Enhance the teamwork and efficiency of the Department, Industry, Municipalities, Testing/Inspection Agencies, and Consultants by training all individuals together.

- Support the Department's Construction and Maintenance Programs through provision of appropriate training.

- Support the Quality Control, Quality Acceptance and Quality Assurance Programs of the Department.

SPECIFICATION REQUIREMENTS

Virginia Department of Transportation specifications require that during the production and placement of some materials a Certified Materials Technician be present. The following activities and the corresponding technicians summarize these specifications. Refer to the *Virginia Department of Transportation Road and Bridge Specifications* or the project contract documents for the actual specifications.

1. The production of Central Mix Aggregate requires the presence of a Certified Aggregate Plant Technician.
2. The production of Hot Mix Asphalt (HMA) requires the presence of a Certified Asphalt Plant Technician. Development and adjustment of HMA mix designs requires a Certified Asphalt Mix Design Technician.
3. The production of Hydraulic Cement Concrete (HCC) requires the presence of a Certified HCC Plant Technician or Certified HCC Batchers. Development and adjustments of HCC mix designs must be performed by a Certified HCC Plant Technician or under his direction.
4. The placement of HMA, surface treatment and slurry seal requires the presence of a Certified Asphalt Field Technician.
5. The placement of HCC requires the presence of a Certified HCC Field Technician.
6. A Certified Pavement Marking Technician is required during the placement of pavement markings.

CERTIFICATION REQUIREMENTS

Certification Titles

School	Certification Title
Asphalt Concrete Field	Asphalt Field Technician
Asphalt Concrete Plant (Level I)	Asphalt Plant Technician
Asphalt Concrete Plant Mix Design (Level II)	Aggregate Properties Technician
Asphalt Concrete Plant Mix Design (Level II)	Asphalt Mix Design Technician
Hydraulic Cement Concrete Field	Hydraulic Cement Concrete Field Technician
Hydraulic Cement Concrete Plant	Hydraulic Cement Concrete Plant Technician
Central Mix Aggregate Plant	Central Mix Aggregate Technician
Soils and Aggregate Field	Soils Compaction Technician
Pavement Marking	Pavement Marking Technician
Nuclear Safety and Transportation	Nuclear Safety Technician

Certification

To obtain certification in a selected program, the applicant has a choice of two procedures. The first procedure would be to attend a full school in the area they wish to become certified, pass a written examination and successfully complete a Performance Evaluation if required.

Approximately 4 - 6 weeks after passing the written examination notification will be sent indicating completion of the classroom portion of the school. Upon successfully passing the written exam, a Performance Evaluation must be completed except in the Hydraulic Cement Concrete Plant and Nuclear Safety programs. The individual has one year from June 30th, of the school year in which they passed the written examination to successfully complete the Performance Evaluation. After successfully completing the Performance Evaluation a Certification will be awarded. The Certification is good for five years. The Certification card has the expiration date printed on it. Expiration is five years from June 30th of the school year that the individual attended class. The only exception is the Nuclear Safety Certification; expiration is three years from June 30th of the school year that the individual attended class.

If an individual does not successfully pass the exam or the Performance Evaluation they may retake the part, or parts failed, **ONE TIME ONLY**. For the written examination, this must be

done before June 10th of the current school year. After June 30th the individual must come back to the full school and pay the full fee again.

The second procedure for obtaining Certification is as a Self-Study student. The individual would take the examination without attending a full school. The full course fee still applies. If a study guide is purchased prior to taking the examination, the price of the study guide may be deducted from the examination fee. If the student fails to pass the examination, he/she must again pay the course fee and attend a full school before re-taking the examination. The individual must also successfully complete a Performance Evaluation, if required. The Asphalt Plant Mix Design Certification and the Nuclear Safety Certification are not available as a Self-Study.

The Certification belongs to the individual, not their employer. **Upon change of employment or location**, please notify the Central Office Materials Division Certification Schools Section at (804) 328-3156.

Recertification

After successful completion of a full school the individual is eligible to continue their Certification by attending a Recertification School in the particular subject area every five years, except Nuclear Safety, which is every three years.

The Asphalt Concrete and Hydraulic Cement Concrete Recertification schools cover individuals certified in both Plant and Field.

Beginning with the 2007 School Season the individual seeking re-certification must also successfully complete the required Performance Evaluation sometime during the last year of their current certification period.

EACH CERTIFIED INDIVIDUAL IS RESPONSIBLE FOR RETURNING TO THE APPROPRIATE RE-CERTIFICATION SCHOOL PRIOR TO EXPIRATION OF THEIR CERTIFICATION. IT IS NEVER VDOT'S RESPONSIBILITY TO ASSURE THEIR ATTENDANCE.

Extensions

If, for a justifiable reason, an individual is unable to attend a recertification school the year in which their Certification expires, an extension for one year may be granted by obtaining approval from the District Materials Engineer.

Extensions may be granted for one year only. The extension must be obtained by June 1 of the current school year. If an individual does not return after the one-year extension, he/she will become decertified and must attend a full school, pass the written examination and the Performance Evaluation to regain Certification.

Due to the Code of Federal Regulations (CFR 49 172.704), under recurring training, a HazMat certified employee must receive training every 3 years. Therefore no extensions will be granted for the Nuclear Safety Certification.

Exempt Certification Status

An exempt certification status means that no expiration date applies.

For an individual to receive exempt status a full school must have been attended and the examination passed, in the area of the exempt status. Only VDOT personnel may be exempt.

Individuals in the following categories are eligible for the exempt certification status:

- State Materials Engineer
- Assistant State Materials Engineer
- District Materials Engineer
- Assistant District Materials Engineer

Individuals will lose their exempt status upon terminating employment with VDOT and must meet all recertification requirements to maintain their certifications.

NO EXEMPT STATUS GIVEN FOR NUCLEAR SAFETY CERTIFICATION.

Decertification

A certified individual could be decertified for any of the following reasons:

1. failure to meet re-certification criteria
2. found guilty of falsifying test results, records or reports
 - 1st offense would result in a one (1) year suspension of certification
 - 2nd offense would result in a permanent loss of certification
3. improper performance of tests as documented by IA Audit, Certified VDOT Technician or other authorized VDOT representative
 - Improper performance could be for:
 - not following the test procedure
 - not having the required equipment or equipment not in calibration
 - not performing calculations in accordance with specifications and/or test procedures

All documented infractions, deficiencies, etc. shall remain part of an individual's training/certification record for five years or until re-certification

- 1st offense – report of improper test performance and follow-up action by immediate supervisor or agency representative
- Corrective/Follow-up Action: corrective action shall be as specified in the "Report of Improper Test Performance"
- a follow-up assessment will be completed by immediate supervisor or agency representative to determine if all documented deficiencies have been corrected
- 2nd offense – written warning from VDOT

- 3rd offense – 90 day suspension period
- Any further offenses after the 90 day suspension period will result in decertification

Individuals decertified for any reason must wait one year from the date of decertification, to become certified. The individual must attend a full school, pay the current fee, pass the written examination and pass the Performance Evaluation.

PROGRAM OPERATION

Instructors

Instructors for the program come from VDOT Materials Division, Traffic Engineering, VDOT Regional Construction Quality Improvement Program and private industry. Although instruction must comply with VDOT procedures and specifications, we welcome and encourage the participation of industry in all parts of the program.

The Central Office Materials Division Training Section Staff assists instructors by providing visual aids, instructor training, videotape production, writing/editing of manuals and presentations, grading of examinations and maintenance of the program's database.

Program Evaluation

Students

Course evaluation forms are distributed to each student during class. These evaluations are a key to the overall success of this program, and are an important source for revisions in our curriculum and presentations.

Examinations

Exams will be given on the Monday following the class for these schools:

Central Mix Aggregate Plant, Asphalt Field, HCC Plant and Soils & Aggregate Compaction.

Exams will be given on the afternoon of the last day of class for these schools:

Asphalt Concrete Plant, Asphalt Concrete Plant Mix Design, Aggregate Properties, HCC Field School and Pavement Marking.

Exams will be given immediately following class instruction for Nuclear Safety.

Examinations may be taken at other locations by special arrangement. The Central Office Materials Division Training Section grades all examinations. The examination results of each class are compiled and analyzed. Frequently missed questions are evaluated and addressed by some combination of clarifying the question, highlighting the information in the manuals, asking the instructor to highlight the information or revising the question.

Advisory Teams

At the end of each season, the teaching teams meet with the Central Office Staff to discuss and evaluate the past year's schools. Included in this meeting are various subject matter experts, both VDOT and Industry. Student evaluations and test results are compiled prior to this time and are presented at the meeting. From this information and the advice of the instructors, action plans are formed to adjust the teaching, curriculum, manuals and tests to best meet the needs of the students and the Department.

Study Guides

Study guides are revised and printed annually. Instructor teams meet at the end of each school season to ensure the study guides contain accurate and up to date information. Changes or corrections are incorporated into the study guides before the next school season.

Scheduling

Scheduling is done by the Central Office Training Section Staff along with the District School Coordinators. The District secures the classroom facilities and sends class schedules to industry in their District. Classes are generally held between November and the middle of April.

Scheduling of the schools is usually completed by early August. Districts in which schools will be held are determined according to the projected number of returnees and estimated new attendance. During the school year, registration numbers are monitored to determine if additional schools are needed.

To obtain a schedule, contact either your District Materials Engineer, or the Central Office Materials Division at 804-328-3156. The schedule is available on the Materials Division Home Page on the VDOT Intranet or on the Internet at the VDOT web page at www.virginiadot.org.

Class Cancellations

Every effort will be made to hold classes; however, weather conditions or low registrations may be justification for cancellation of a class. The District hosting the school will make every attempt to contact the students in the event of a cancellation. **Cancellations will also be posted on the Materials Certification Schools Information Line (1-866-527-8656).** If the District Office closes due to inclement weather, the class will be cancelled also. If this happens contact the District Materials Office to make other arrangements.

WHO SHOULD ATTEND?

The Program offers nine schools. The target audience for each school is as follows:

Asphalt Concrete Plant School (Level I): Plant Operators, Lab technicians - both Producer and VDOT, VDOT Plant Inspectors.

Asphalt Concrete Plant Mix Design School (Level II): Producer personnel charged with actual mix design and VDOT asphalt laboratory technicians/Plant Inspectors.

Aggregate Properties School: This school is taught as part of the Asphalt Concrete Plant Mix Design School. Producer personnel, both aggregate and asphalt, charged with actual mix design and VDOT asphalt laboratory technicians/Plant Inspectors.

Asphalt Concrete Field School: VDOT Inspectors, Contract/Consultant Inspectors, Producer's and Contractor's construction crew leaders.

Hydraulic Cement Concrete Plant School: Plant Operators, Lab technicians - both Producer and VDOT, VDOT Plant Inspectors.

Hydraulic Cement Concrete Field School: VDOT Inspectors, Contract/Consultant Inspectors, Producer's and Contractor's construction crew leaders.

Central Mix Aggregate Plant School: Plant Operators, Lab technicians - both Producer and VDOT, VDOT Plant Inspectors.

Soils and Aggregate Compaction School: VDOT Inspectors, Contract/Consultant Inspectors, Producer's and Contractor's construction crew leaders.

Nuclear Safety School: All individuals involved with Nuclear Density Testing on a VDOT project. Individuals receiving training on Nuclear Safety from another source have until the next school season to attend the VDOT Nuclear Safety School.

Pavement Marking School: Pavement Marking Contractor Personnel, VDOT Inspectors, Materials Division Industrial Inspectors, Traffic Engineering Division Field Technicians and Inspectors.

Although the individuals listed above are the "target" population for the schools, anyone who wishes to attend is welcome as space allows. Target population individuals will receive priority.

In the past, attendees ranged from the very new employees to the very experienced, and/or highly educated. If by education or experience portions of the material seem like "old hat", your polite cooperation and respect for the learning of others is appreciated. In no event will rowdiness or disruption in the classroom be tolerated. Those individuals that persist in disrupting the class will be asked to leave and their employer notified.

FEE SCHEDULE

(Effective September 2003)

Certification Schools

The fee includes course attendance, manual and other materials, the examination and one retest. A wallet card will be issued upon successful completion.

THE FEE FOR ALL SCHOOLS IS \$200, EXCEPT NUCLEAR SAFETY WHICH IS \$100.00.

Students may, if they feel qualified, take the examination without attending a full school. The full course fee still applies. If they purchase a study guide for \$35 prior to taking the examination, the price of the study guide may be deducted from the full examination fee. If the student fails to pass the examination, he/she must again pay the full course fee and attend a full school before re-taking the examination.

Recertification Schools

All Recertification Schools.....\$50.00

This fee includes course attendance, manual and other materials. A wallet card will be issued upon successful completion.

Checks should be made payable to the *Treasurer of Virginia*. The fee is required in full, in advance of class attendance.

Extensions

One extension only is at no charge. If an individual's certification expires, the full fee will be required, as well as a successful completion of the course and all required testing to re-instate that certification.

Refunds

Full refunds are allowed only if notification is received at least four business days before the start of the class. Contact the District Materials Office where the class is being held.

To process a refund the following information is needed:

Individuals Name
Individuals S.S.N.
Company Name
Company Address
Federal I.D. number of company
Name of class
Date(s) of class
District in which class was held
Amount to be refunded

Note: The District Materials Engineer may elect to credit toward an upcoming class.

MID-ATLANTIC REGIONAL TECHNICIAN CERTIFICATION PROGRAM (MARTCP)

Introduction

The Mid-Atlantic Region Technician Certification Program (MARTCP) is comprised of the States of New Jersey, Pennsylvania, Delaware, Virginia, West Virginia, Maryland and the District of Columbia and the Federal Highway Administration. The initial push for this program came from each state realizing that they were duplicating training efforts, along with the FHWA's requirement (23 CFR 637), that each state have a training program to insure qualified personnel are available to accomplish sampling, testing, and inspections of materials. This organization is dedicated to raising the knowledge level of technicians performing hands-on testing of products, inspection and services provided to the transportation industry.

The agencies participating in the MARTCP have agreed to develop core programs in hot mix asphalt, concrete, soils and aggregates, and pavement markings. Additional programs may be added in the future as needs are identified. The MARTCP Agencies have also agreed to include "best practices" as a portion of each technical program.

Agency specifications will not be included as part of the MARTCP manuals, but will be covered separately by each Agency. The purpose of the manuals is not to supercede Agency specifications, but to compliment Agency specifications and provide the MARTCP Agencies with the confidence that a minimum required level of knowledge has been attained by each technician certified through the Mid-Atlantic Region Program.

Implementation

Full implementation of the MARTCP program will require some time and an exact schedule is not available. VDOT curricula incorporate current MARTCP curricula. All participating state agencies are scheduled to begin at least partial implementation by July 2003.

Reciprocal Agreements

The long-term goal of MARTCP is to provide a regional technician certification program that will be recognized by all of the participating organizations. The MARTCP certifications would be valid in all the participating states with each state requiring knowledge of state specific procedures not covered in the MARTCP program.

VDOT recognizes all participating MARTCP states' certifications and will issue a Letter of Reciprocal Certification upon request. A \$50 fee per reciprocal certification and proof of original certification is required. Interested parties should contact the Materials Division Training Section at (804) 328-3156.